

REMARKS

Reconsideration of the above-identified application in view of the foregoing amendments and following remarks is respectfully requested.

A. Status of the Claims and Explanation of Amendments

Claims 1,3 and 5-8 were pending. By this paper, claims 1, 3 and 7 are amended.

Claim 1 was objected to for alleged improper introduction of certain features.

[3/10/08 Office Action at pg.3]. Claim 1 has been accordingly amended to clarify the relationship of the first and second driving schemes, which are both from the plurality of driving schemes recited in the claim. Claim 1 has also been amended to recite, *inter alia*, “wherein each pixel defect within the first pixel defect information corresponds to a pixel defect within the second pixel defect information.” Support for this amendment may be found throughout Applicant’s specification as originally filed, including for example, in Figures 2, 3A and 3B. Claims 6, 7 and 8 have been similarly amended.

Claim 3 was objected to because of alleged confusion as to the status of the recited “first driving scheme.” *Id.* Claim 3 has been accordingly amended to state that the first driving scheme is of the plurality of driving schemes.

Claim 7 was rejected under 35 U.S.C. § 101 for allegedly claiming non-statutory subject matter. [3/10/08 Office Action at pg.4]. Applicant wishes to thank Examiner for suggesting how to overcome the rejection. Claim 8 has been amended accordingly.

As to the merits, the office action rejected claims 1, 3 and 6-8 under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,819359 to Oda et al. (“Oda”).

Claim 5 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Oda in view of U.S. Patent No. 6,970,193 Kidono et al. (“Kidono”).

B. Claims 1,3 and 5-8 are Patentably Distinct from Oda and Kidono

The rejections of claims 1,3 and 5-8 are respectfully traversed. As explained more fully below, the requirements for such rejections are not met. In particular, Oda and Kidono do not teach, disclose or suggest “wherein each pixel defect within the first pixel defect information corresponds to a pixel defect within the second pixel defect information,” as recited in Applicant’s claim 1.

Applicant’s claim 1 as amended recites:

An image sensing apparatus having an image sensing device, comprising:

a driving unit adapted to drive the image sensing device by a plurality of driving schemes;

a pixel defect information storage unit adapted to store pixel defect information as information about a pixel defect in the image sensing device in correspondence with each driving scheme; and

a correction unit adapted to correct the pixel defect by referring to the pixel defect information in said pixel defect information storage unit in accordance with the driving scheme with which said driving unit drives the image sensing device,

wherein said correction unit, based on first pixel defect information of a first driving scheme from the plurality of driving schemes, generates second pixel defect information for the second driving scheme, and stores the second pixel defect information in said pixel defect information storage unit,

wherein each pixel defect within the first pixel defect information corresponds to a pixel defect within the second pixel defect information, and

wherein said second driving scheme from the plurality of driving schemes drives to read a second number of pixels of signal from the image sensing device, where the second number is smaller than a first number of pixel of signal read from the image sensing device by the first driving scheme.

As an initial matter, the Office Action indicated that “adapted to” claim language “broadens the scope of claims” and that “adapted to” clauses will not be given patentable weight. [3/10/08 Office Action at pg. 7-8]. Although MPEP § 2111.04 [R-3] does state, “Claim scope is not limited by claim language that suggests or makes optional but does not require steps to be performed, or by claim language that does not limit a claim to a particular structure” it continues to state that “adapted to” clauses “may raise a question as to the limiting effect of the language in a claim.” Therefore, “[t]he determination of whether . . . these clauses is a limitation in a claim depends on the specific facts of the case.” *Id.* As “adapted to” language appears in several of Applicant’s claims, Applicant respectfully requests a more complete statement for each specific instance of an “adapted to” clause as to why it is believed that it should not be given patentable weight.

Oda is directed towards an apparatus and method for “controlling imaging in which defective pixels . . . can be corrected to output improved-quality still images, even as well as improved-quality moving images. . . .” This pixel defect coordinate information on the photosensitive array may be stored in memory. [Oda at Col.5 Ins.45-55; Col.2 Ins.22-26]. In the still image mode, a defective pixel is replaced with a calculated result based on the values of pixels adjacent to the defective pixel. [Oda at Col.2 Ins.50-57]. In the moving image mode,

instead of processing a defective pixel, the value of the previous pixel, which has been held in a sample and hold circuit, replaces the defective pixel. [Oda at Col.6 lns.38-54].

The Office Action indicated that Oda discloses generation and storage of second pixel defect information, citing Oda Col.10, lines 46-61. [3/10/08 Office Action at pg.5]. The cited passage indicates that coordinate for defective pixel correction is stored in the moving image mode. [Oda Col.10, lines 46-61]. However, Oda also teaches that the moving image mode “control unit may omit defective pixel correction for pixels that will be decimated . . .” *Id.* This is because in Oda’s moving image mode, the imaging device . . . extracts every other pixel horizontal and vertically (decimate to one-half) in response to the input drive signal. . . .” [Oda at Col.5 lns.62-65]. Thus the pixel defect information for Oda’s moving image mode drops certain defective pixels that may exist in Oda’s still image mode. Accordingly, there is no teaching of “wherein each pixel defect within the first pixel defect information corresponds to a pixel defect within the second pixel defect information,” as recited in Applicant’s claim 1.

Kidono is directed toward an image correction mechanism. Applicant fails to see an interaction between the defect information of the various drive schemes. It is believed Kidono does not teach or suggest the feature of the claimed device, which generates the second defect information for the second driving scheme based on the first defect information and wherein each pixel defect within the first pixel defect information corresponds to a pixel defect within the second pixel defect information. Therefore, the claimed device is not anticipated by Kidono.

Accordingly, as Applicant cannot find “wherein each pixel defect within the first pixel defect information corresponds to a pixel defect within the second pixel defect information,” of claim 1 in Oda or Kidono, at least independent claims 1 and its dependent

Appl. No. 10/772,952
Paper dated June 9, 2008
Reply to Office Action dated March 10, 2008

claims 3 and 5 are respectfully asserted to be in condition for allowance. For at least similar reasons, independent claims 6-8 also are respectfully asserted to be in condition for allowance.

CONCLUSION

For the above-stated reasons, this application is respectfully asserted to be in condition for allowance. An early and favorable examination on the merits is requested. In the event that a telephone conference would facilitate the examination of this application in any way, the Examiner is invited to contact the undersigned at the number provided.

THE COMMISSIONER IS HEREBY AUTHORIZED TO CHARGE ANY ADDITIONAL FEES WHICH MAY BE REQUIRED FOR THE TIMELY CONSIDERATION OF THIS AMENDMENT UNDER 37 C.F.R. §§ 1.16 AND 1.17, OR CREDIT ANY OVERPAYMENT TO DEPOSIT ACCOUNT NO. 13-4500, ORDER NO. 1232-5277.

Respectfully submitted,
MORGAN & FINNEGAN, L.L.P.

Dated: June 9, 2008

By:



Allen Chein
Registration No. 57,451

Correspondence Address:
MORGAN & FINNEGAN, L.L.P.
3 World Financial Center
New York, NY 10281-2101
(212) 415-8700 Telephone
(212) 415-8701 Facsimile